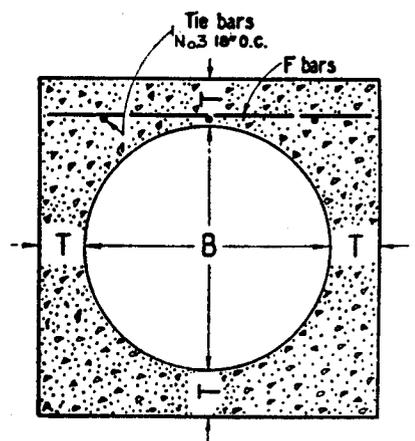


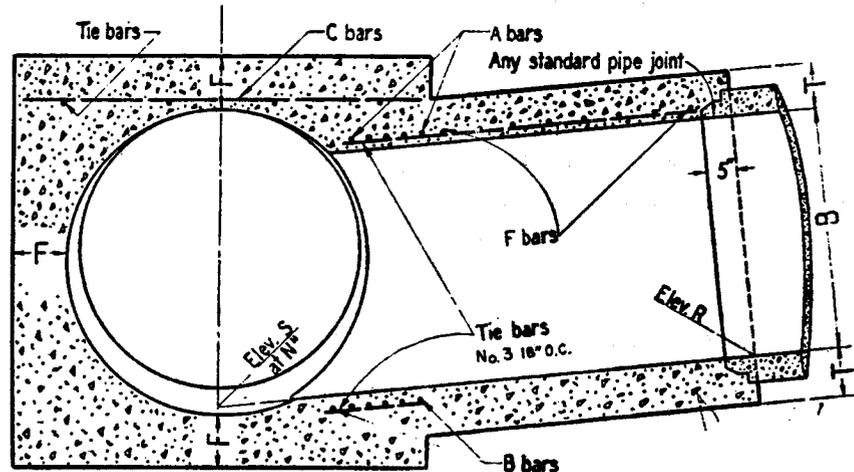
PLAN



SECTION G-G

TABLE OF VALUES FOR F AND T

D ₂	F	B	T
12"	4"	12"	4"
15"	4½"	15"	4½"
18"	4½"	18"	4½"
21"	5"	21"	5"
24"	5½"	24"	5½"
27"	5½"	27"	5½"
30"	6"	30"	6"
33"	6½"	33"	6½"
36"	6½"	36"	6½"
39"	7"	39"	7"
42"	7½"	42"	7½"
45"	7½"	45"	7½"
48"	8"	48"	8"
51"	8½"	51"	8½"
54"	9"	54"	9"
57"	9½"	57"	9½"
60"	9½"	60"	9½"
63"	10"	63"	10"
66"	10½"	66"	10½"
69"	10½"	69"	10½"
72"	11"	72"	11"
78"	11½"		
84"	12½"		
90"	13½"		
96"	14"		



SECTION N'-N''-N'''
Projected on M-M-N''''

CONCRETE SPECS	
T	CONCRETE CLASS
4" - 9½"	560 - C - 3250
10" - 11"	560 - B - 3250

TABLE OF BAR SIZES		
D ₂ or B	A & B bars	D or F bars
.12" - 39"	No. 5 at 3"	No. 4 at 6"
42" - 84"	No. 6 at 3"	No. 5 at 6"
90" - 144"	No. 7 at 3"	No. 6 at 6"

APPROVED	<i>Robert C. Wells</i>	DATE	7/14/78
PUBLIC WORKS DIRECTOR - R.C.E. 18793			
△	Added Table of Bar Sizes		11-9-82
△	ADDED: PRIME NOTATION TO L, E, F, C ON PLAN VIEW, AND 2, 11, 3		7/22/82
MARK	REVISIONS	APPR.	DATE

CITY OF RIVERSIDE
PUBLIC WORKS DEPT. - ENGINEERING DIV.

JUNCTION STRUCTURE C

STANDARD DRAWING NO. **422**
Sheet 1 of 3

NOTES

- 1 - VALUES for A,B,C',D1,D2,E',L', Elevation R, and Elevation S are shown on Improvement Plan (see sheet 3 of 3). TABLE of values for F and T shown on this Standard Drawing, Sheet 1.
- 2 - OPTIONAL CONSTRUCTION: When Junction Structure B is specified on improvement plan, the Contractor shall have the option of constructing Junction Structure C, in which case construction data will be furnished by the City Engineer.
- 3 - CONCRETE shall be in accordance with the table on Sheet 1.
- 4 - FLOOR of structure shall be steel-troweled to springing line.
- 5 - REINFORCING STEEL shall be round, deformed, straight bars, 1 1/2" clear from face of concrete unless otherwise shown.
Tie bars shall be No. 3 and spaced 18" on centers or closer.
A and B bars need not be longer than the outside diagonal width of the lateral spur.
- 6 - STEEL SCHEDULE detailed on improvement plan.
- 7 - ELEVATION S applies at center of main line on prolongation of invert of spur.
- 8 - JUNCTION STRUCTURE shall be poured in one continuous operation, except that the Contractor shall have the option of placing at the springing line a construction joint with a longitudinal keyway.
- 9 - LENGTH L (shown on improvement plan) may be increased at option of Contractor to meet pipe ends, using C bars in extended portion of same diameter and spacing as specified on improvement plan, but any change in location of SPUR must be approved by the City Engineer.
- 10- STATIONS of manholes shown on improvement plan apply at intersection of main line and spur. Elevations shown at this point refer to prolonged invert grade lines, except that when intersection of center lines falls outside of structure, the elevations are shown and apply at extreme lower end of the structure.
- 11- LATERALS - Where laterals enter on both sides of structure, they shall be designated on the improvement plan as right or left, facing in the direction of stationing.

(Adapted from City of Los Angeles Std. Plan No. B-1832)

APPROVED <i>Robert E. Walker</i> DATE <i>7/17/78</i> PUBLIC WORKS DIRECTOR - R.C.E. 18793		CITY OF RIVERSIDE PUBLIC WORKS DEPT. - ENGINEERING DIV.	
⚠	Defined Engineer	<i>DLR</i>	<i>4-7-82</i>
⚠	Added Sheet 3	<i>DLR</i>	<i>7/27/78</i>
MARK	REVISIONS	APPR.	DATE
STANDARD DRAWING NO. 422			Sheet 2 of 3

STORM DRAIN MAIN							
		30	40	50	60	70	80
12	C	2.2	1.8	1.6	1.5	1.4	1.3
	F	1.9	1.5	1.2	1.0	0.8	0.6
15	C	2.5	2.0	1.8	1.6	1.5	1.5
	F	2.2	1.7	1.3	1.1	0.9	0.7
18	C	2.8	2.3	2.0	1.8	1.7	1.6
	F	2.4	1.8	1.4	1.1	0.9	0.7
21	C	3.1	2.5	2.2	2.0	1.9	1.8
	F	2.7	2.0	1.6	1.2	1.0	0.7
24	C	3.4	2.7	2.4	2.2	2.0	2.0
	F	3.0	2.2	1.7	1.3	1.0	0.8
27	C	3.7	3.0	2.6	2.3	2.2	2.1
	F	3.2	2.4	1.8	1.4	1.1	0.8
30	C	4.0	3.2	2.8	2.5	2.4	2.3
	F	3.5	2.6	2.0	1.5	1.1	0.8
33	C	4.3	3.4	3.0	2.7	2.5	2.4
	F	3.8	2.8	2.1	1.6	1.2	0.8
36	C	4.6	3.7	3.2	2.9	2.7	2.6
	F	4.0	2.9	2.2	1.7	1.2	0.9
39	C	4.9	3.9	3.4	3.0	2.9	2.7
	F	4.3	3.1	2.4	1.8	1.3	0.9
42	C	5.3	4.2	3.6	3.2	3.0	2.9
	F	4.6	3.3	2.5	1.9	1.4	0.9
45	C	5.5	4.4	3.8	3.4	3.2	3.1
	F	4.9	3.5	2.6	2.0	1.4	0.9
48	C	5.8	4.6	4.0	3.6	3.3	3.2
	F	5.1	3.7	2.7	2.0	1.5	1.0
51	C	6.2	4.9	4.2	3.8	3.5	3.4
	F	5.4	3.9	2.9	2.1	1.5	1.0
54	C	6.5	5.2	4.4	4.0	3.7	3.5
	F	5.7	4.1	3.0	2.2	1.6	1.0
57	C	6.8	5.4	4.6	4.1	3.8	3.7
	F	5.9	4.2	3.1	2.3	1.6	1.1
60	C	7.1	5.6	4.8	4.3	4.0	3.8
	F	6.2	4.4	3.3	2.4	1.7	1.1
63	C	7.4	5.9	5.0	4.5	4.2	4.0
	F	6.5	4.6	3.4	2.5	1.8	1.1
66	C	7.7	6.1	5.2	4.7	4.3	4.2
	F	6.7	4.8	3.5	2.6	1.8	1.1
69	C	8.0	6.4	5.4	4.9	4.5	4.3
	F	7.0	5.0	3.7	2.7	1.9	1.2
72	C	8.3	6.6	5.6	5.0	4.7	4.5
	F	7.3	5.2	3.8	2.8	1.9	1.2
75	C	8.6	6.8	5.8	5.2	4.8	4.6
	F	7.5	5.3	3.9	2.8	2.0	1.2
78	C	9.0	7.1	6.0	5.4	5.0	4.8
	F	7.8	5.5	4.0	2.9	2.0	1.2
81	C	9.3	7.3	6.2	5.6	5.2	4.9
	F	8.1	5.7	4.2	3.0	2.1	1.3
84	C	9.6	7.6	6.4	5.7	5.3	5.1
	F	8.4	5.9	4.3	3.1	2.2	1.3
87	C	9.9	7.8	6.6	5.9	5.5	5.3
	F	8.6	6.1	4.4	3.2	2.2	1.3
90	C	10.2	8.1	6.8	6.1	5.7	5.4
	F	8.9	6.3	4.6	3.3	2.3	1.4
93	C	10.5	8.3	7.0	6.3	5.8	5.6
	F	9.2	6.5	4.7	3.4	2.3	1.4
96	C	10.8	8.5	7.2	6.5	6.0	5.7
	F	9.4	6.7	4.8	3.5	2.4	1.4

STORM DRAIN LATERAL							
		30	40	50	60	70	80
12	C	1.9	1.5	1.2	1.0	0.8	0.6
	F	2.2	1.8	1.6	1.5	1.4	1.3
15	C	2.2	1.7	1.3	1.1	0.9	0.7
	F	2.5	2.0	1.8	1.6	1.5	1.5
18	C	2.4	1.8	1.4	1.1	0.9	0.7
	F	2.8	2.3	2.0	1.8	1.7	1.6
21	C	2.7	2.0	1.6	1.2	1.0	0.7
	F	3.1	2.5	2.2	2.0	1.9	1.8
24	C	3.0	2.2	1.7	1.3	1.0	0.8
	F	3.4	2.7	2.4	2.2	2.0	2.0
27	C	3.2	2.4	1.8	1.4	1.1	0.8
	F	3.7	3.0	2.6	2.3	2.2	2.1
30	C	3.5	2.6	2.0	1.5	1.1	0.8
	F	4.0	3.2	2.8	2.5	2.4	2.3
33	C	3.8	2.8	2.1	1.6	1.2	0.8
	F	4.3	3.4	3.0	2.7	2.5	2.4
36	C	4.0	2.9	2.2	1.7	1.2	0.9
	F	4.6	3.7	3.2	2.9	2.7	2.6
39	C	4.3	3.1	2.4	1.8	1.3	0.9
	F	4.9	3.9	3.4	3.0	2.9	2.7
42	C	4.6	3.3	2.5	1.9	1.4	0.9
	F	5.3	4.2	3.6	3.2	3.0	2.9
45	C	4.9	3.5	2.6	2.0	1.4	0.9
	F	5.5	4.4	3.8	3.4	3.2	3.1
48	C	5.1	3.7	2.7	2.0	1.5	1.0
	F	5.8	4.6	4.0	3.6	3.3	3.2
51	C	5.4	3.9	2.9	2.1	1.5	1.0
	F	6.2	4.9	4.2	3.8	3.5	3.4
54	C	5.7	4.1	3.0	2.2	1.6	1.0
	F	6.5	5.2	4.4	4.0	3.7	3.5
57	C	5.9	4.2	3.1	2.3	1.6	1.1
	F	6.8	5.4	4.6	4.1	3.8	3.7
60	C	6.2	4.4	3.3	2.4	1.7	1.1
	F	7.1	5.6	4.8	4.3	4.0	3.8
63	C	6.5	4.6	3.4	2.5	1.8	1.1
	F	7.4	5.9	5.0	4.5	4.2	4.0
66	C	6.7	4.8	3.5	2.6	1.8	1.1
	F	7.7	6.1	5.2	4.7	4.3	4.2
69	C	7.0	5.0	3.7	2.7	1.9	1.2
	F	8.0	6.4	5.4	4.9	4.5	4.3
72	C	7.3	5.2	3.8	2.8	1.9	1.2
	F	8.3	6.6	5.6	5.0	4.7	4.5
75	C	7.5	5.3	3.9	2.8	2.0	1.2
	F	8.6	6.8	5.8	5.2	4.8	4.6
78	C	7.8	5.5	4.0	2.9	2.0	1.2
	F	9.0	7.1	6.0	5.4	5.0	4.8
81	C	8.1	5.7	4.2	3.0	2.1	1.3
	F	9.3	7.3	6.2	5.6	5.2	4.9
84	C	8.4	5.9	4.3	3.1	2.2	1.3
	F	9.6	7.6	6.4	5.7	5.3	5.1
87	C	8.6	6.1	4.4	3.2	2.2	1.3
	F	9.9	7.8	6.6	5.9	5.5	5.3

EXAMPLE:

Given:

- D₂ = 60"
- B = 39"
- A = 50"

Find: C', E', & L'

SOLUTION:

1. Enter Storm Drain Main Table with Given D₂ & A.
C_M = 4.8 ft. E_M = 3.3 ft.
2. Enter Storm Drain Lateral Table with Given B & A.
C_L = 2.4 ft. E_L = 3.4 ft.
3. C' = C_M + C_L = 4.8 ft. + 2.4 ft. = 7.2 ft.
4. E' = E_M + E_L = 3.3 ft. + 3.4 ft. = 6.7 ft.
5. L' = E' + 1 ft. = 6.7 ft. + 1 ft. = 7.7 ft.

APPROVED	<i>Robert C. Uehle</i>	DATE	12/23/82
PUBLIC WORKS DIRECTOR - R.C.E. 18793			
△	CORRECTED VALUES & CHANGED EQUATION		12-23-82
MARK	REVISIONS	APPR.	DATE

CITY OF RIVERSIDE
PUBLIC WORKS DEPT. - ENGINEERING DIV.

JUNCTION STRUCTURE C

STANDARD DRAWING NO. 422

Sheet 3 of 3